New York Soil Health Survey of Costs, Constraints, and Benefits

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Number of survey responses (n=182)
Crop Production Constraints in New York

- Poor drainage
- Compaction
- Erosion

% of respondents
# Major Benefits of Reduced Tillage

<table>
<thead>
<tr>
<th>Rank</th>
<th>Corn &amp; Soy (n=17)</th>
<th>Vegetables (n=13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less labor, fuel, or equipment (88.2%)</td>
<td>Less erosion repair (69.2%)</td>
</tr>
<tr>
<td>2</td>
<td>Less erosion repair (76.5%)</td>
<td>Greater yields (69.2%)</td>
</tr>
<tr>
<td>3</td>
<td>Greater yields (35.3%)</td>
<td>Less labor, fuel, or equipment (53.8%)</td>
</tr>
</tbody>
</table>
Reduced Tillage
Greater yields

Crop group
- All crops
- Corn & Soy
- Vegetables

Corn & Soy vs. Veg p-value = 0.14
### Major Benefits of Cover Crops

<table>
<thead>
<tr>
<th>RANK</th>
<th><strong>Corn &amp; Soy</strong> (n=24)</th>
<th><strong>Vegetables</strong> (n=19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less erosion repair (95.8%)</td>
<td>Less erosion repair (78.9%)</td>
</tr>
<tr>
<td>2</td>
<td>Source of animal forage (45.8%)</td>
<td>Greater yields of cash crops (78.9%)</td>
</tr>
<tr>
<td>3</td>
<td>Greater yields of cash crops (33.3%)</td>
<td>Less fertilizer (57.9%)</td>
</tr>
</tbody>
</table>
Cover Crops
Greater cash crop yields

Crop group
- All crops
- Corn & Soy
- Vegetables

Corn & Soy vs. Veg p-value = 0.0076
Cover Crops
Used as source of animal forage

Crop group
- All crops
- Corn & Soy
- Vegetables

Corn & Soy vs. Veg p-value = 0.03
Changes in costs and benefits over the long term

Different levels of experience:

• 1 - 5 years
• 5 - 10 years
• 10 - 20 years
• 20+ years
Reduced Tillage
Less erosion or sedimentation repairs

Chi-square p-value = 0.002

% of group

Experience
1-5 yrs
5-10 yrs
10-20 yrs
20+ yrs

1-5 yrs
5-10 yrs
10-20 yrs
20+ yrs
Reduced Tillage
Benefits from cost-share programs (NRCS, CSP, CRP)

Chi-square p-value = 0.032

Experience
- 1-5 yrs
- 5-10 yrs
- 10-20 yrs
- 20+ yrs

% of group

% of group

1-5 yrs
5-10 yrs
10-20 yrs
20+ yrs
Cover Crops
Greater yields of cash crops

Chi-square p-value = 0.032

Experience
- 1-5 yrs
- 5-10 yrs
- 10-20 yrs
- 20+ yrs